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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/638,421	08/12/2003	Daisuke Ochi	241516US90	5193

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

NGUYEN, TU X

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/26/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/26/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/638,421

Applicant(s)

OCHI ET AL.

Examiner

Tu X. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's arguments with respect to claims 1-11 and 13-28 and have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter "a user node able to act as a server" which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 56 are rejected under 35 U.S.C. 103(a) as being obvious over Ditzik (US Patent 5,983,073) in view of Wilson et al. (US 6,141,533).

Regarding claims 1-3 and 5-6, Ditzik discloses a communication system, comprising:

A user node (see fig.7, element 14);

A corresponding node able to request communication with the user node (col.2 lines 45-55, "bi-directional communication" corresponds to "request communication"); and

A relay node that is constantly connected to the corresponding node, said relay node and said user node acting as one virtual node with respect to the corresponding node (see col.2 lines 6-65);

Ditzik fails to disclose a user node able to act as a server.

In the related art, Wilson et al. disclose a user node able to act as a server (see col.4 lines 45-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ditzik with the above teaching of Wilson et al. in order to provide a user node acting as a server to relay data between other mobile unit and a wide area communication network or a notebook of Ditzik's as a system describe above, thus the user node acting as a server helps to extend the communication range of the end mobile unit or increasing communication capacity.

The modified Ditzik and Wilson et al. disclose

The relay node includes

A first signal receiving unit that receives data from the corresponding node (see Ditzik, col.12 lines 50-57);

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A first data processing unit that supplies the data to a program executed by a processor in the relay node according to a communication session identification number included in the data (see Ditzik, col.12 lines 50-59, it is considered that the relay node is included a processor in order to provide wireless communication with the mobile unit and a signal path to a mobile unit such as a channel, a port or a communication session identification number), and

A data transmitting unit that transmits the data processed by the first data processing unit to the user node (see Ditzik, col.12 lines 50-56); and

The user node includes a second data processing unit that supplies the data to a program executed by another processor on the user node according to the communication session identification number included in the data (see Ditzik, col.8 lines 19-21, it is considered that the user node is included a processor in order to provide wireless communication with the wide area network and a signal path to a wide area network such as a channel, a port or a communication session identification number).

Regarding claim 2, the modified Ditzik discloses the user node and the relay node act as a virtual node with respect to the corresponding node, the virtual node being identified by a node address of the relay node (see Ditzik, col. 6 lines 19-45, it is considered that the computer is including a node address in order to route signal between the source and destination).

Regarding claim 3, the modified Ditzik discloses data processed by the relay node are synchronized with data processed by the user node (see Ditzik, col.2 lines 50-55, it is considered the transmitter and receiver are synchronized each other in order to transmit and receive data).

Regarding claim 5, the modified Ditzik discloses comprising a node information management unit configured to store information of the user node and the relay node (see Ditzik, col.3 lines 6-15, a powerful CPU notebook providing wireless communications means is inherently include node information management).

Regarding claim 6, the modified Ditzik discloses the user node is able to transmit signals to or receive signals from the corresponding node without going through the relay node (see Ditzik, fig.7 elements 14, 32).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Regarding claims 7 and 19, Ditzik discloses a relay node in a communication system including the user node, a corresponding node able to request to communicated with the user node, and a relay node that is constantly connected to the corresponding node and is able to act as proxy of the user node to communicate with the corresponding node, said relay node comprising:

A signal receiving unit that receives data from the corresponding node (see col.2 line 56 through col.3 line 15);

A data processing unit that supplies data to a program executed by a processor in the user node according to a communication session identification number included in the packet

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signal (see Ditzik, col.5 lines 55-56, col.12 lines 50-59, it is considered that the relay node is included a processor in order to provide wireless communication with the mobile unit and a signal path to a mobile unit such as a channel, a port or a communication session identification number),

Wherein

The user node is able to be request a communication with the corresponding node; and the user node and the relay node act as one virtual node with respect to the corresponding node (see col.2 line 50 through col.3 line 21).

Regarding claim 13, Ditzik discloses a user node in a communication system including the user node, a corresponding node able to request to communicated with the user node, and a relay node that is constantly connected to the corresponding node and is able to act as proxy of the user node to communicate with the corresponding node, said user node comprising:

A data processing unit that supplies data from the corresponding node through the relay node to a program executed by a processor in the user node according to a communication session identification number included in the data (see col.2 line 50 through col.3 line 20, it is considered that the user node is included a processor in order to provide wireless communication with relay node and a signal path to a relay such as a channel, a port or a communication session identification number),

Wherein

The user node is able to be request a communication with the corresponding node (col.2 lines 45-55, "bi-directional communication" corresponds to "request communication"); and the

user node and the relay node act as one virtual node with respect to the corresponding node (see col.2 line 50 through col.3 line 21).

Regarding claims 8, 14 and 20, Ditzik discloses the user node and the relay node act as a virtual node with respect to the corresponding node, the virtual node being identified by a node address of the relay node (see col. 6 lines 19-45, it is considered that the computer is including a node address in order to route signal between the source and destination).

Regarding claims 9, 15 and 21, Ditzik discloses data processed by the relay node are synchronized with data processed by the user node (see col.2 lines 50-55, it is considered the transmitter and receiver are synchronized each other in order to transmit and receive data).

Regarding claims 11, 17 and 23, Ditzik discloses comprising a node information management unit configured to store information of the user node and the relay node (see col.3 lines 6-15).

Regarding claims 6, 12, 18 and 24, Ditzik discloses the user node is able to transmit signals to or receive signals from the corresponding node without going through the relay node (see fig.7 elements 14, 32).

Regarding claims 25-28, Ditzik discloses the relay node includes a common storage unit that reads data from, and transfers data to, the user node when a communication link between the relay node and the user node is connected (see col.3 lines 4-15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being obvious over Ditzik in view of Wilson et al. and further in view of Schmutz et al. (US Patent 6,748,212).

Regarding claim 4, Ditzik fails to disclose comprising a link monitoring unit configured to monitor a communication link between the user node and the relay node.

In an analogous art, signal quality between the fixed base station and the repeater transmission, Schmutz et al. disclose comprising a link monitoring unit configured to monitor a communication link between the user node and the relay node (see abstract). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ditzik and Wilson with the above teaching of Schmutz et al. in order to provide measuring signals between the repeater and the base station to avoid interference (as suggested by Schmutz, see col.9 lines 57-65).

Claims 10, 16 and 22, are rejected under 35 U.S.C. 103(a) as being obvious over Ditzik in view of Ditzik and further in view of Schmutz et al. (US Patent 6,748,212).

Regarding claims 10, 16 and 22, Ditzik fails to disclose comprising a link monitoring unit configured to monitor a communication link between the user node and the relay node.

In an analogous art, signal quality between the fixed base station and the repeater transmission, Schmutz et al. disclose comprising a link monitoring unit configured to monitor a communication link between the user node and the relay node (see abstract). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to

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modify the system of Ditzik with the above teaching of Schmutz et al. in order to provide measuring signals between the repeater and the base station to avoid interference (as suggested by Schmutz, see col.9 lines 57-65).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is 571-272-7883.

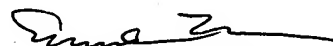
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



February 8, 2007



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